

REMARKS

Claims 1, 13, and 29 are amended herein. Claims 11-12, 19-28, and 37-39 were previously cancelled. Claims 1-10, 13-18, and 29-36 are pending for the Examiner's review and consideration. The amendments to the claims are fully supported by the original specification and claims. The amendments were simply made to clarify the claims to clearly distinguish the claims from the prior art. No new matter has been added by the amendments made herein. Entry of the amendments at this time is therefore respectfully requested.

Claim Rejections

The last remaining rejection is of Claims 1-10, 13-18, and 29-36 under 35 USC §103(a) as being obvious over Bashaw (1980), in view of Savidan (1982), and further in view of Dujardin (1988) for the reasons set forth on pages 3-6. All other rejections have been withdrawn. Applicant has amended the presently pending claims in an attempt to clarify and expedite the withdrawal of this remaining rejection. Applicant respectfully requests that this remaining rejection be withdrawn.

Applicant's invention is directed to a unique method of producing an angiospermous apomictic plant with an increased genetic stability for apomixes. Applicant's presently claimed method is directed specifically to production of stabilized apomictic plants from sexual plants selected from *Antennaria*, *Sorghum* or *Tripsacum*. The presently claimed method requires the following critical steps of: (a) cytoembryologically ascertaining the developmental timing of the nongametophytic ovule and ovary tissues consisting of the nucellus, integument, pericarp, hypanthium, or pistil wall for each of the selected plants; (b) choosing a first and a second plant based on the cytoembryologically ascertained developmental timing of the nongametophytic ovule and ovary tissues, wherein the initiation of embryo sac formation of the first plant is at the same time or before meiosis in the second plant; and (c) hybridizing the first plant with the second plant.

Bashaw fails to teach or suggest these critical steps. Again, this hits at the core of Applicant's surprising discovery and the present claims. The teachings of Bashaw also fail to teach apomixes production with respect to *Antennaria*, *Sorghum* or *Tripsacum* as presently required by the claims.

Savidan fails to remedy the deficiencies of Bashaw. While Savidan does teach general cytoembryological techniques, it does not teach or motivate one skilled in the art to modify the method of Bashaw to include the critical and specific steps discovered and taught by Applicant. Namely, cytoembryologically ascertaining the developmental timing of the specific ovule tissue claimed; choosing a first and second plant based on the cytoembryologically ascertained developmental timing information of the specific ovary tissue so that embryo sac formation of the first plant is at the same time or before meiosis in the second plant, or the step of hybridizing the specifically chosen plants. In addition, like Bashaw, Savidan's teachings are also not directed to *Antennaria*, *Sorghum* or *Tripsacum* plants, and would likewise be unpredictable when applied to the specifically claimed method.

Dujardin fails to remedy the deficiencies of both Bashaw and Savidan. Dujardin teaches the generic doubling of chromosomes. This does not remedy the lack of teaching with respect to the specific steps of the presently claimed method of producing genetically stable apomictic *Antennaria*, *Sorghum* or *Tripsacum* plants. Again, the claims require the steps of: ascertaining the developmental timing of the nucellus, integument, pericarp, hypanthium, and pistil wall; choosing a first and second plant based on the cytoembryologically ascertained developmental timing of this specific tissue, wherein the first plant initiates embryo sac formation before or at the same time the second plant is going through meiosis; followed by hybridizing the specifically chosen plants in Applicants specialized process of producing a genetically stabilized apomictic plant. Dujardin teachings with respect to the generic doubling of chromosomes clearly do not teach or suggest any of these steps and thus could not remedy the deficiencies of Bashaw and Savidan. Furthermore, like Bashaw and Savidan, Dujardin is also not directed to *Antennaria*, *Sorghum* or *Tripsacum* and would also fail to remedy these deficiencies as well.

In addition, there is no motivation in any of the cited references to modify the method of Bashaw of simply hybridizing apomictic plants to incorporate these specific steps as set forth above. Thus, even if they were taught, there would be no motivation or reason to go through all of the extra work of cytoembryologically ascertaining the developmental timing of the nucellus, integument, pericarp, hypanthium, and/or pistil wall of the selected plants in order to be able to use this specific information to choose a first and second plant based on this developmental timing information gathered to identify a first plant that initiates embryo sac formation before or

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at the same time the second plant is going through meiosis in order to hybridize the chosen plants to produce a genetically stabilized apomictic plant. Without this teaching and/or motivation in the prior art the present claims cannot properly be found to be obvious.

For all of these reasons, Applicant respectfully requests that this rejection be withdrawn.

In view of the above amendments and arguments, Applicant believes the claims are to be in condition for allowance. If there are any questions, the Examiner is invited to call Applicant's representative Rodney Fuller at (602) 916-5404 to resolve any remaining issues to expedite the allowance of this application.

Respectfully submitted,

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